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ABSTRACT

This document summarizes the continued effort to develop procedures and machinery for a State-wide, 5-year followup of Utah high school and postsecondary vocational students. Included in the document are data for cost-effectiveness evaluation of vocational programs. Emphasis was placed on judging the value of the data collection instruments and procedures as previously developed and reported in earlier reports. The current efforts led to several conclusions, including: (1) the method of deriving the populations was adequate, (2) the procedures for collecting enrollment data and the percentage of questionnaire returns were not satisfactory, and (3) program costs are highly variable without apparent reason. It was recommended that this project be continued. (Author/JS)

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INTRODUCTION

In July 1967 a publication entitled Cost Effectiveness Study of Utah Vocational Programs was produced by the Utah Research Coordinating Unit for Vocational and Technical Education. The results of this publication brought to light the need of a follow-up of those students who have completed vocational education programs. The introductory paragraph graphically states the need of evaluating the vocational programs.

"A means is needed for measuring the effectiveness of our vocational education programs as a function of the dollars invested in these programs. This measure is needed as one basis for determining which programs need improvement or reorientation, and which programs need increasing."

The study made some important recommendations. A recommendation was made to expand the former follow-on report to provide information about high school graduates who enter non-baccalaureate, vocational and technical post-secondary courses. At the same time it would be salient to have information available on those students who go directly to work after high school graduation.

Another recommendation was made to adapt the follow-on report to the computer so... "that plans could be made to gather information on each high school vocational graduate each year for at least five years to permit a better estimate of the cost-effectiveness of the vocational programs."

Problem Statement

The problem was to continue the development of the procedures and machinery for a State-wide, five year follow-up of high school and post-secondary vocational students, and to report the data for cost-effectiveness evaluation of the programs.

Objectives of the Study

The objectives of the follow-up study of vocational students were:

1. To accumulate course enrollment and completion information for vocational education students in Utah.
2. To measure the progress of the ex-vocational student in the world of work.
3. To solicit comments from the former student concerning the quality of his vocational training.
4. To provide the district, the school and the instructor information about former students which they may use to measure their counseling and teaching effectiveness, and the value of courses taught.
5. To provide information for cost-effectiveness analysis of vocational programs.

6. To replace the forms previously required from each district and needed by the State to complete the Federal Follow-Up Report (Form OE 3138) due in Washington, D.C. on December 1 of each year.

7. To compare the progress of past vocational students in the world of work and education to the progress of a sample of past students who were not in vocational programs to see if any major differences existed between the groups.

Limitations of the Study

1. This study is limited to high school and post-secondary students who began a vocational course regardless of whether or not they completed a vocational program, and to a comparative sample of non-vocational past students from four high schools.

2. Utah is somewhat different from other states regarding high school graduates. At 19 years of age many young men serve an LDS (Mormon) Church mission for two or two and one half years. In such cases, entry into the labor market is delayed, and evaluation of occupational development and success within a five year period therefore may be difficult.

3. No students who began vocational programs before the school year 1967-68 are included.

Definition of Terms

1. COMPLETED PROGRAM: A vocational class or series of classes which are conducted under the standards of the State Vocational Education Plan and completed by the student. The criteria for secondary level program completion are given in the Appendix ("Code Book, Project Follow-Up" 1968-69, Appendix, attached.)

2. FOLLOW-UP INSTRUCTION AND CODE BOOK: The book which is distributed to all vocational teachers and provides the instructions for completing the "Student Exit Form." (Appendix, attached.)

3. POST-SECONDARY VOCATIONAL PROGRAM: Any program of sub-baccalaureate level preparation in a specific occupational field offered at a publicly supported technical school, junior college, four-year college or university in the State. (Appendix, attached.)

4. STUDENT EXIT FORM: A questionnaire which is to be filled out by the student at the time he leaves or completes a vocational class. (Appendix, attached.)

5. STUDENT MAIL-OUT QUESTIONNAIRE: The instrument which is sent to the former vocational student who has graduated from or dropped out of school. (Appendix, p. 31.)

6. VOCATIONAL CLASS: A class teaching a program of occupational preparation according to standards established in the State Plan of the

Office of Vocational/Technical Education in any of the following fields: Agriculture, distribution and marketing, health occupations, home economics, office occupations, technical occupations, and trade and industrial occupations.

METHOD

Preliminary Preparation

In order to conduct a project of this magnitude, it was necessary to have the approval and support of local personnel. In November, 1967, a letter was sent to superintendents of all school districts in Utah. The letter explained the purpose of the program and asked for their approval. A total of 40 letters were mailed, together with preliminary forms of the Student Exit Form and the Mailout Questionnaire. Approval was obtained from all 40 district superintendents.

In December, 1967, a similar letter was sent to all post-secondary administrators and vocational personnel to solicit their approval and support. One hundred percent approval was obtained. Also in December, 1967, a letter explaining the "Follow-Up" project was sent to all Utah high school principals and district vocational directors. This letter outlined their responsibility in the "Follow-Up" project.

Population of the Study

The population of this study included 100 percent of the high school students in Utah who had enrolled in a vocational class during the 1968-69 school year and 100 percent of post-secondary vocational-technical students for the same period.

Inclusion of all students who enroll in vocational classes and programs permits a comparison of those students who complete a program with those who leave the program before completion. A 100 percent follow-up was chosen instead of a sampling method because a major objective of the program was to supply information about its own students to each high school and post-secondary school in the State. Many of Utah's high schools are extremely small and their vocational student populations were considered too small to survey on a sampling basis.

A second population was composed of 100 percent of former secondary and post-secondary students who completed or for any reason left a vocational program during the school year 1967-68 and who responded to the initial follow-up survey. (See UTAH PROJECT "FOLLOW-UP", Interim Report, dated June 1969.)

A third population was composed of 100 percent of former secondary students who completed, or for any reason, left high school during the year 1967-68 who were never enrolled in any vocational programs and who responded to an earlier survey. (See UTAH PROJECT "FOLLOW-UP", Interim Report, dated June 1969.)

Procedures of the Study

Student Exit Form (Code Book, attached). The Student Exit Form was completed by each high school or post-secondary school student who exited for any reason from a vocational education class regardless of whether the course had been completed. The data obtained from this form included: name, address, social security number, an alternate address, district and school codes, course name and code, exit date, current status of the student (dropping out, remaining in school, etc.) birthdate, and whether the student completed the course.

When the Exit Forms were completed, they were returned to the Research Coordinating Unit of the Utah State Board of Education, Division of Research and Innovation, at the close of the 1968-69 school year. After the Exit Forms were accumulated, the information was keypunched and entered on a magnetic computer tape where each student was identified by social security number or an assigned number. Separate class records were established for each student within the occupational fields in which he was enrolled. The record in each area was cumulative; the student was listed once for the general vocational area in which he was enrolled, and numbers of courses were added to this record. In the event the student took an additional course in the same area the previous or following year, a new record was not established, but his total courses in the area were increased by the number of courses he took.

It was deemed desirable to develop a method of identifying special groups of students on whom Follow-Up information might be requested, without the necessity of knowing the social security numbers of such persons. For example, the evaluation of several innovative programs involves following the progress of students enrolled in them. To simplify the processing of this information, a special coding system was established. A three-digit code was assigned to each special group and entered on the records maintained for students in these groups. When it is desired to retrieve information on one of these groups, this can be accomplished by sorting out all records with the particular special code assigned to that group.

Mailout Questionnaire (Appendix, p.31). During September of each year for five consecutive years after he graduates, or for any other reason leaves school, the vocational student will be sent a follow-up questionnaire printed on a standard keypunch card. These cards were sent to the graduates of 1968 and 1969. After 10 days a reminder letter was sent to all non-respondents. After another 10 days, the remaining non-respondents were sent another questionnaire. In cases where the first questionnaire was returned because of incorrect address, the second questionnaire was sent to the alternate address supplied on the Student Exit Form.

Information solicited by the mailout questionnaire included: school status, military status, employment status, name/address changes, relationship of continued education or employment to earlier vocational courses, salary information, and comments on their vocational programs.

Special Non-Vocational Follow-Up (Appendix, p. 32) One fact which became increasingly obvious as Project Follow-Up developed was that there was little information available on non-vocational students against which to compare the data accumulated on vocational students. It was decided therefore, that a special follow-up study would be undertaken which would include all non-vocational students in the 1968 graduating class in four high schools in the State: East (Salt Lake District), Payson (Nebo District), Richfield (Sevier District), and Parowan (Iron District).

These students will be sent a Follow-Up survey questionnaire every year for five years following graduation. The sequence and procedures followed have been the same as those for the regular vocational Follow-Up. A new questionnaire was developed for this group because the main questionnaire had been specifically designed for vocational students.

Reports Supplied

Follow-Up. Data for the Federal Follow-Up Report (Form OE-3138) is compiled from returns of the mailout questionnaire and Exit Form with the figures adjusted as described on Page 6. In addition, analyses are prepared for individual schools and districts in the State. The information supplied in these local reports is shown in the section "Discussion", Page 10. These reports were assembled by the computer, based on the data collected from the mailout questionnaires.

Cost-Effectiveness Analysis. One of the objectives of Project Follow-Up, as previously mentioned, was to provide data for cost-effectiveness analysis of vocational-technical programs. A previous cost-effectiveness study referred to in the introductory section of this report pointed to the need for accurate follow-up information on vocational students in order to determine the effectiveness of vocational programs as a function of the dollars invested in them.

RESULTS

Return of Student Exit Forms

Student Exit Forms were received through July 1969 for the second year's records. There were 23,768 documents processed, from secondary schools which came from students in grades 10-12 who had more than one course in a particular vocational field or who had courses in more than one field, as well as those who had only one course. There were 2,311 documents processed from post-secondary school students who had more than one course in a particular field or who had courses in more than one field as well as those who had only one course.

As in previous years, it was expected that the total number of forms processed would, in fact, be only a portion of the total number which should have been processed due to entire classes or schools failing to submit Exit Forms, students absent on the day the Exit Forms were completed, forms lacking vital information and therefore being unusable, and similar circumstances. To correct for this type error, duplicated enrollment figures were obtained from 14 secondary schools for all vocational classes for which Exit Forms should have been submitted. When

the count of secondary students was available from the Exit Form tape, the total obtained from the check count was compared with the recorded total from the same schools. An adjustment factor was calculated to correct for the difference between the two figures, thusly:

$$\frac{\begin{array}{l} \text{Duplicated count based on} \\ \text{returns of Exit Forms} \\ \text{from 14 check schools} \end{array}}{\begin{array}{l} \text{Duplicated count by check} \\ \text{with 14 schools} \end{array}} = \text{Adjustment factor (K)} \frac{5,266}{11,447} = .46$$

All secondary reports based on the Follow-Up data were corrected using this factor, except where noted otherwise. This check count procedure was not, however, utilized in regard to returns from the post-secondary schools, and their returns were not corrected, as an adequate basis for correction has not yet been devised. Post-secondary enrollment data is therefore reported as it was received.

In addition to this duplicated count of students enrolled in vocational education programs, an unduplicated count was made. The unduplicated count, counting each student only once regardless of how many vocational classes he took and whether or not they were in one or more vocational fields, revealed that 22,292 individuals were enrolled in vocational-technical classes in secondary schools in the State during the 1968-69 school year, and there were 2,286 enrolled full time in regular day programs in post-secondary schools.

Adjusted by the figure derived as shown above then, there were 32,546 students (unduplicated count) enrolled in vocational classes during 1968-69, and these students amounted to duplicated enrollments of 34,728 (see table 2, p.11).

Considerable numbers of Exit Forms were submitted with some information lacking, which necessitated returning forms to the schools or in some cases phoning schools or individual students to get the information to complete the form. Students for whom social security numbers could not be obtained after reasonable efforts received a computer-assigned identification number derived by an algorithm from such basic data as last name, birth date, etc., but often the missing information was as basic as the name or code number of the class, the student's address, birth date, or exit date. In some cases, the information was simply impossible to obtain and the form was discarded.

Return of Mailout Questionnaires

In September, 1969, 20,392 questionnaires were sent to former secondary students. Of these questionnaires, 15,452 were sent to former students of 1969, and 4,940 were sent to former students of 1968. There

was a total of 8,191 questionnaires returned (40%), 5,416 (35%) from those who left in 1969, and 2,775 (56%) from those who left in 1968.

A total of 2,616 questionnaires were sent to former post-secondary students. Of these questionnaires, 2,072 were sent to former students of 1969, and 544 were sent to former students of 1968. There was a total of 1,139 questionnaires (43.5%) returned, 842 (40.6%) from those who left in 1969, and 297 (54.5%) from those who left in 1968. (These were actual figures, not adjusted by any constant.)

A record was maintained of the return of the forms, and this was examined to determine if the reminder notice and second questionnaire mailout were effective in increasing returns. In both cases a noticeable increase occurred in the return of questionnaires for several days after the mailing, but this was more pronounced in the case of the second questionnaire than of the reminder notice. In view of the fact that the second questionnaire was more expensive however the procedure followed was considered satisfactory.

The same procedure was used in following up the non-vocational students from four high schools. A return of 471, or 67 percent, of the 733 sent was obtained.

Due to the possible bias in the data, introduced by the non-response of 65 percent of the 1969 secondary vocational survey group, a sample of non-responders from that group was surveyed by telephone to establish what their response pattern would have been. No major discrepancy was discovered between the responses of those telephoned and those who returned the questionnaire. Distribution of the data that would have been returned by these non-responding 1969 graduates was therefore made on the basis of the distribution of responder data. No survey was made of 1968 graduates who did not respond.

Federal Follow-Up Report

Secondary School Level. Data for the Federal Follow-Up Report (Form OE-3138), Table 1, was accumulated from the Student Exit Forms and the Mailout Questionnaires. Considerable change was made in the data supplied by the computer before it was officially submitted to the U.S. Office of Education. These changes can be described as follows:

1. The non-responders were distributed proportionally among the various categories to reflect the distribution verified by phone survey. It was considered legitimate to assume that the non-responders actually resembled the response group in view of the telephone sample survey of those from whom a reply questionnaire was not received (see Page 6, Return of Mailout Questionnaires).

2. Differences existed between the total number of completions reported to the Office of Vocational/Technical Education in the Spring of 1969 and submitted to the USOE on Form OE-4048, and the number computed on the basis of the Exit Form submissions, even when those figures were adjusted using the adjustment factor previously described (p.6).

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		NUMBER COMPLETING PROGRAM REQUIREMENTS		LEFT PRIOR TO NORMAL COMPLETION TIME WITH MARKETABLE SKILLS		STATUS UNKNOWN		NUMBER NOT AVAILABLE FOR PLACEMENT					NUMBER AVAILABLE FOR PLACEMENT				
		1	2	3	4	5	6	7	8	9	10	11	12				
		12768	23	158	821	1117	4176	3529	2405	519	515	1040	301				
TOTAL (duplicated) Secondary	M	1286	2	14	149	133	372	395	227	34	57	109	29				
	F	41	0	19	0	2	10	10	6	0	3	0	3				
01 AGRICULTURE	M	575	0	6	76	46	204	144	71	6	17	41	6				
	F	489	0	5	4	52	45	124	221	60	45	83	35				
04 DISTRIBUTIVE EDUCATION	M	30	0	0	0	0	18	8	8	0	0	8	0				
	F	72	1	0	0	11	26	26	21	3	3	13	3				
07 HEALTH	M	76	0	0	15	0	13	15	19	3	5	8	3				
	F	388	0	2	0	15	17	30	59	21	24	9	5				
09 HOME ECONOMICS (Gainful)	M	2463	2	29	243	169	1025	812	202	12	50	115	25				
	F	4501	2	53	9	417	1667	1247	1166	322	178	488	178				
14 OFFICE OCCUPATIONS	M	2739	12	29	325	258	743	689	379	58	122	155	10				
	F	108	4	1	0	14	36	29	26	0	11	11	4				
TOTAL (duplicated) Post-Secondary		1105	352	993	43	24	129	150	297	186	52	31	34				
01 AGRICULTURE	M	7	0	7	0	0	0	0	0	0	0	0	0				
	F	0	-	-	-	-	-	-	-	-	-	-	-				
04 DISTRIBUTIVE EDUCATION	M	5	0	0	0	2	1	2	1	0	2	1	2				
	F	2	0	0	0	0	0	0	2	1	1	0	0				
07 HEALTH	M	0	-	-	-	-	-	-	-	-	-	-	-				
	F	47	6	0	1	1	2	6	45	34	3	8	2				
09 HOME ECONOMICS (Gainful)	M	0	-	-	-	-	-	-	-	-	-	-	-				
	F	0	-	-	-	-	-	-	-	-	-	-	-				
14 OFFICE OCCUPATIONS	M	152	51	129	5	0	40	29	4	4	0	0	0				
	F	111	32	53	0	0	8	13	33	22	8	0	3				
16 TECHNICAL	M	112	67	122	10	2	26	19	59	44	7	5	3				
	F	10	0	6	0	0	0	0	4	4	0	0	0				
17 TRADE & INDUSTRY	M	637	192	654	27	19	51	78	131	65	29	15	22				
	F	22	4	22	0	0	1	3	18	12	2	2	2				

The final copy of the Follow-Up report was made to conform to the totals indicated on Form OE-4048. The discrepancy between these figures, however, was small, and efforts are being made to substitute the Exit Forms for other methods of reporting enrollments and completions to the Office of Vocational/Technical Education.

Post-Secondary School Level. Because of the very incomplete data supplied by the post-secondary schools, the 1969 Report was based entirely upon data supplied by the Division of Post-Secondary Programs. Non-responders were assumed (but not verified) to be approximately the same as responders and figures were distributed on the basis of percentages derived from the responder figures. (See Table 1)

Local Reports

Follow-Up reports were computed for each high school, district, and post-secondary school in the State. Information concerning the former vocational students from each school and district was supplied which indicated how many were working and at what types of jobs; how many were attending school and in what kinds of programs; the number in the armed forces; average salaries of those employed; and, whether the responders felt their training helped them get jobs and/or succeed on the job.

Secondary School Level. While the Federal Follow-Up report data was adjusted twice, first by applying the special factor, and then by substituting in the figures from the districts reported in Form OE-4048, Local Reports were adjusted only once, by the special factor. Further adjustment was not made because figures were only available on a district basis in the Vocational Division, and it was felt that reports for each school should total for the districts and should reflect actual returns. Because it could not be determined what distribution should be made of non-responder figures they were reported in a separate group and include both completors and non-completors. Therefore, completion figures shown in the Local Report tables will not necessarily agree with those shown in the Federal Report tables; although Federal Report figures are probably an accurate summary for the State, they would not necessarily be valid for individual districts.

Post Secondary School Level. Figures reported in the Federal Report, as mentioned, were based entirely on data supplied by the Division of Post-Secondary Programs, distributed on the same percentages as responders. Local Reports, however, were completed on the basis of the figures derived from responses to the questionnaire. There will therefore be some discrepancy apparent between the sets of data. Which of the sets is the more accurate is impossible to say; it is supposed, intuitively, however, that there is a mix of accuracy between the sets, in some cases, the OE-4048 figures being better, and in others the Local Report figures.

Non-Vocational Survey. Data from the non-vocational student survey were compiled and reported, with State-wide comparisons, as a supplement to the local follow-up reports of vocational students for the information of local district and school personnel. However, no attempt was made to relate this data to any individual district or school.

DISCUSSION

Enrollments

As noted in the following tables, enrollments are reported in both duplicated and unduplicated numbers. Duplicated enrollments are a count of numbers of students enrolled in individual classes; if a given student is taking classes in more than one area or more than one class in a given area, he is counted once in each class. Unduplicated enrollments refer to the net number of individuals enrolled regardless of the number of classes; even if a student is taking several vocational classes, he is counted only once.

Secondary Enrollments (Tables 2, 3). The figures reported in the following tables are based on the returns of Exit Interview Forms from the individual schools, adjusted by a factor of 1.46, (1.6 for 1968) derived as noted on Page 6. The factor was applied to the unduplicated count as well as the duplicated count to arrive at final figures. Enrollments are reported for grades 10-12 only, except in the case of "Special Courses" in which some 9th grade students are also counted. Apparently due to inadequate instructions in the Code Book, some Special Course enrollments are not reported where they should have been. (e.g., the Mobile Assisted Career Exploration program was conducted in Iron District, but enrollments were not reported.).

Figures for both 1968-69 and 1967-68 are shown for purposes of comparison. Percents of change are based on absolute numbers rather than proportional, but it is notable that in almost all cases, the change is positive, indicating that enrollments in vocational programs are increasing. Even in districts in which total enrollments are decreasing, vocational enrollments are increasing. It should be borne in mind, however, that in cases of exceptionally large increases or decreases it is possible that changes are more apparent than real due to inaccuracies in reporting; e.g., very poor returns on Exit Forms from 1967-68, and very good returns, plus real increases, from 1968-69, might be the cause of the 700 percent change in participation shown for District Number 8. On the whole, however, the figures reported are considered adequate for discussion purposes, and for the State, probably reasonably accurate.

In only three cases did duplicated counts of enrollments decrease from 1968 to 1969, but in no cases did unduplicated counts decrease, and only one district showed no change. In addition, in all cases but one, participation as a percent of the total number of students grades 10-12 increased, the percents of increase ranging from 3 to 700 with a median of 62 percent; the percent of decrease in one district was -79 percent. The rate of participation in the State as a whole changed from 29 percent to 51 percent, an increase of 76 percent.

Post-Secondary Enrollments (Table 4). As with the secondary enrollments, post-secondary enrollments are reported here on the basis of returns of the Exit Interview Forms; however, no correction factor is applied to the figures and they are shown exactly as the individual institutions reported them through the Exit Forms. In many programs, the figures that were reported may be too low, but they are apparently

Table 2

Enrollments 1969

DUPLICATED ENROLLMENT COUNT										UNDUPLICATED COUNT						
01 Ag.	04 D.E.	07 Health	09 Home Ec.	14 Office	17 T&I	99 Special	Total	All Voc'l Programs	All Pro-grams	% Dup-lication	% Par-ticipation	% Change in undup. enroll-ment from '68	% Change in dup. enroll-ment from '68	% Change in Participa-tion from '68		
1	311	88	33	1263	115	---	1810	1728	3658	05	47	+38	+31	+47		
2	85	0	0	183	36	79	383	357	397	07	89	+66	+60	+89		
3	400	41	0	676	100	---	1218	1085	1962	11	55	+39	+29	+53		
4	178	54	0	366	109	---	707	635	1369	10	46	+41	+37	+59		
5	0	126	0	488	108	---	725	649	1022	10	63	+22	+6	+34		
6	0	0	0	10	0	---	10	10	31	00	32	+30	-23*	+39		
7	254	151	0	1969	436	---	2810	2610	6395	07	41	+34	+27	+46		
8	110	0	0	126	91	---	327	327	586	00	56	+88	+83	+700		
9	44	0	0	165	13	---	222	213	387	04	55	+79	+62	+323		
10	66	16	20	95	39	---	236	200	244	15	82	+59	+58	+141		
11	0	1	9	188	83	---	281	267	421	05	63	+42	+32	+61		
12	0	148	38	4724	743	---	5700	5453	12338	04	44	+51	+43	+100		
13	3	28	37	191	118	---	377	347	755	08	46	+38	+31	+59		
14	131	89	1	1482	161	---	1864	1796	3825	04	47	+42	+35	+62		
15	38	0	0	102	23	---	163	159	257	02	62	+32	+11	+44		
16	28	15	0	89	16	---	148	131	176	11	74	+55	+47	+124		
17	38	0	0	324	55	425	842	738	783	12	94	+61	+58	+88		
18	101	19	0	180	0	---	300	263	289	12	91	+51	+49	+72		
19	311	112	0	491	281	---	1233	1099	2198	11	50	+38	+34	+52		
20	77	0	0	188	0	---	265	257	297	03	87	+25	+8	+32		
21	1	0	0	0	0	---	1	1	186	*	5			-79		
22	0	0	0	38	0	---	38	38	86	00	44	+42	+39	+100		
23	31	0	0	41	13	---	85	80	102	06	78	+29	+12	+66		
24	0	0	0	38	15	---	53	49	112	08	44	+8	+13	+7		
25	0	0	0	155	0	---	155	153	414	01	37	+27	+17	+37		
26	155	0	9	568	0	---	732	681	819	07	83	+47	+38	+77		
27	87	0	0	136	38	---	261	240	407	08	59	+61	+48	+168		
28	61	0	0	120	0	---	181	166	166	08	100	+63	+59	+170		
29	0	7	0	72	35	---	114	90	90	21	100	+62	+58	+29		
30	261	32	0	1063	52	---	1408	1284	1386	09	93	+72	+67	+257		
31	118	44	0	112	212	---	486	431	868	11	50	+22	-4 *	+39		
32	101	0	0	277	15	---	393	357	446	09	80	+47	+44	+74		
33	44	50	0	455	54	264	867	814	1215	06	67	+58	+48	+76		
34	32	0	0	123	15	---	170	138	141	19	98	+48	+58	+238		
35	282	90	0	1230	175	---	1803	1658	3854	08	43	+25	+31	+65		
36	0	408	99	3609	545	133	4794	4594	8073	04	57	+45	+47	+111		
37	1	43	1	1556	115	---	1717	1654	3709	04	45	+71	+23	+66		
38	0	82	0	434	50	---	566	534	1650	06	32	N.C.	-14 *	+3		
39	0	0	0	419	48	---	467	465	1004	01	46	+40	+28	+59		
40	0	32	0	616	168	---	816	795	1333	03	60	+39	+30	+58		
State Totals	3349	1676	250	24362	4077	901	34728	32546	63411	06	51	+45	+37	+75		

Table 3

Enrollments 1968

	DUPLICATED COUNT						UNDUPLICATED COUNT					
	01 Ag.	04 D.E.	07 Health	09 Home Ec.	14 Off. Occup.	17 T&I	99 Special	Total	All voc'l programs	% Duplication	All programs	% participation
1	245	1	0	3	932	60	---	1241	1063	14	3325	32
2	58	0	0	0	77	19	---	154	134	13	288	47
3	288	16	0	32	478	55	---	869	665	23	1840	36
4	82	9	0	0	327	27	---	445	383	14	1315	29
5	0	1	0	11	528	144	---	684	506	26	1068	47
6	0	0	0	0	13	0	---	13	7	46	30	23
7	164	32	0	15	1585	252	---	2048	1715	16	6025	28
8	9	0	0	0	46	0	---	55	38	31	540	07
9	0	0	0	0	80	5	---	85	50	41	377	13
10	23	1	0	0	74	2	---	100	82	18	241	34
11	0	2	0	6	132	52	---	192	155	20	399	39
12	10	96	0	1	2753	393	---	3253	2659	19	11847	22
13	23	18	0	20	154	46	---	261	215	18	737	29
14	117	128	0	0	920	52	---	1217	1042	15	3614	29
15	33	0	0	0	102	10	---	145	108	26	253	43
16	11	1	0	0	48	18	---	78	59	25	177	33
17	70	24	0	0	249	12	---	355	291	19	581	50
18	49	0	0	0	105	0	---	154	130	16	244	53
19	209	69	2	0	341	191	---	812	683	16	2080	33
20	87	0	0	0	156	0	---	243	193	21	292	66
21	21	0	0	0	22	0	---	43	43	00	182	24
22	0	0	0	0	23	0	---	23	22	05	98	22
23	30	0	0	21	9	15	---	75	51	24	122	47
24	0	0	0	0	46	0	---	46	45	03	111	41
25	0	0	0	0	129	0	---	129	111	14	404	27
26	65	0	0	0	386	0	---	451	364	20	779	47
27	41	0	0	0	75	20	---	136	94	31	429	22
28	19	0	0	0	56	0	---	75	62	18	169	37
29	0	8	0	0	30	10	---	48	34	30	44	77
30	122	20	0	4	288	26	---	460	364	21	1384	26
31	81	27	0	9	199	189	---	505	325	36	903	36
32	25	13	0	0	168	13	---	219	189	14	411	46
33	121	0	0	0	326	0	---	447	339	25	904	38
34	13	0	0	0	47	12	---	72	41	44	142	29
35	146	131	18	0	818	135	---	1248	943	25	3625	26
36	0	243	0	63	2009	226	---	2541	2248	12	8299	27
37	0	25	0	0	1233	93	---	1351	1036	24	3817	27
38	66	36	0	0	500	53	---	655	534	19	1727	31
39	0	0	0	0	318	18	---	336	280	17	976	19
40	0	68	0	0	415	87	---	570	484	16	1285	38
State Totals	2228	969	20	185	16197	2235	---	21834	17793	19	61084	29

Table 4

Post-Secondary Enrollments - 1968-69

1969

Institution	Agri.	D. E.	Health Occ.	Home Ec.	Office Occ.	Tech.	T & I	Duplicated Total	Undup. Total	% Change Undup. Total	% Change Dup. Total
42	0	0	0	0	26	23	11	60	59	+126	+106
43	0	0	17	0	142	22	56	237	237	+1028	+930
44	0	0	14	0	0	0	166	180	180	-12	-17
45	0	0	0	0	17	30	31	78	77	+3750	+3800
46	0	33	129	0	134	192	327	815	805	+154	+157
47	0	2	78	8	65	37	229	419	416	-3	-5
48	0	2	109	0	47	90	240	488	479	+821	+838
41	0	0	0	0	0	0	34	34	33	+100	+100
TOTALS	0	37	347	8	431	394	1094	2311	2286	+116	

1968

42	0	0	0	1	14	7	7	29	26		
43	0	0	0	0	0	1	22	23	21		
44	0	0	13	0	50	0	155	218	206		
45	0	0	0	0	2	0	0	2	2		
46	0	14	0	0	86	50	166	316	316		
47	0	5	10	3	122	64	240	444	432		
48	0	0	18	0	0	8	26	52	52		
41	0	*	*	*	*	*	*	*	*		
TOTALS	0	19	41	4	274	130	616	1084	1055		

*No Reports

the best that the system can provide, and this may have been due, in part, to the system having been inadvertently oriented toward secondary reporting. It is hoped that future efforts will secure more complete and accurate data from post-secondary institutions by making better provisions for the differences in their operations.

Comparisons between reported years are difficult, if not impossible to make due to evident poor reporting by most of the institutions, at least in regard to 1967-68. State curriculum specialists, in all areas, indicate that enrollments were actually much higher than indicated in the tables. Consequently, the best statement that can be made about the data is that improvements must be made in reporting before any valid conclusions can be drawn, and based on the percents of change that are shown, reporting evidently is improving. Next year's report should provide better data to assess the extent of growth or decline in vocational-technical education in post-secondary institutions.

Completions

Completion figures are duplicated, as a given student might conceivably complete more than one program. Completions of special programs will be reported in a supplement as the figures were not ready when this report was prepared. As with enrollments, adjustments in the completion figures were made on the basis of the specially derived factor, and finally on the basis of the "officially" reported figures submitted to the Vocational Division by the districts and institutions and to the USOE by the Vocational Division.

Secondary Completions (Tables 5, 6). Secondary completions figures reported in the following tables are based only on information acquired through the questionnaires returned by ex-students, the computer program having been written so that only completors who responded to the questionnaire are included in the completion count. Questionnaire forms were mailed to students initially on the basis of the year they report on the Exit Form that they will graduate and/or the teacher's statement of whether the student completed the course and school at the time he left the course. In addition, the student is asked on the questionnaire whether he completed the program indicated on the address portion of the card.

When the responses were processed through the computer, the 1.46 adjustment factor was applied, but in this case, the figures were not re-adjusted on the basis of completions reported to the Vocational Division by the districts as is done for the Federal Report, Form OE-3138. Therefore, there will be some differences between completion figures reported in the following tables (5, 6) and the table representing the Federal Form OE-3138 (Table 1). Comparing the tables, it can be seen that there were 5,560 completors who did not respond to the questionnaire (Federal Report completors minus responding completors = 5,560 non-responding completors).

The most important information indicated in the table is the fact that change in vocational completions from 1968 to 1969, in the majority

Secondary Completion 1969 - Reported by Follow-Up Questionnaire

Table 5

	01 Ag.	04 D.E.	07 Health	09 Home	14 Office	17 T&I	Total Voc'l	No *	Total All	% Change in	% Change in	Voc'l Comp.	% Change %
				Ec.				Response	Programs	Voc'l Com- pletions	All Comple- tions	as % of Total Comp.	Voc. Comp. of Total Comp.
1	54	30	0	13	307	36	440	595	1019	-22	+16	43	-33
2	13	0	0	0	22	15	50	119	106	-32	+29	47	-47
3	58	19	0	0	176	42	295	508	527	-32	+04	56	-34
4	20	8	0	0	87	31	146	385	390	-44	-01	37	-44
5	0	7	0	0	106	45	158	327	294	-50	-08	54	-46
6	0	0	0	0	6	0	6	0	4	+200	-56	150	+528
7	52	62	0	0	522	193	829	1299	1733	-34	+05	48	-37
8	2	0	0	0	28	4	34	91	153	+10	+16	22	-04
9	6	0	0	0	30	6	42	77	132	-33	+15	32	-42
10	10	8	0	0	26	4	48	58	70	+02	-04	69	+08
11	0	0	0	0	29	14	43	0	86	-48	-15	50	-38
12	0	47	13	6	816	210	1092	2426	3273	-31	+08	33	-38
13	6	8	0	13	45	41	113	110	222	-23	-01	51	-22
14	34	37	0	0	231	47	349	985	1020	-39	+03	34	-40
15	9	0	0	0	22	9	40	0	74	-13	-01	54	-11
16	7	6	0	0	15	3	31	66	54	-35	N.C.	57	-36
17	22	5	0	0	67	14	108	165	180	-30	+05	60	-33
18	20	4	0	0	11	0	35	0	79	+46	+18	44	+22
19	35	33	19	0	115	89	291	584	614	-49	+03	47	-51
20	16	0	0	0	31	0	47	0	86	-08	-10	55	+04
21	0	0	0	0	8	0	8	6	48	-62	-06	17	-59
22	0	0	0	0	5	0	5	4	26	-77	+13	19	-80
23	4	0	0	0	6	1	11	18	28	-65	-42	39	-41
24	0	0	0	0	17	3	20	39	40	+300	+38	50	+194
25	0	0	0	0	52	0	52	38	97	-17	-08	54	-08
26	30	0	0	0	110	0	140	167	246	+51	+25	57	+21
27	24	0	0	0	32	0	56	72	106	-08	-21	53	+15
28	3	0	0	0	15	0	18	0	43	-25	-20	42	-05
29	0	1	0	0	4	3	8	0	14	-54	+17	57	-69
30	32	15	0	0	137	14	198	255	377	+04	-04	53	+10
31	12	22	0	0	25	48	107	240	242	-61	+05	44	-25
32	10	1	0	0	38	4	53	0	131	N.C.	+35	40	-27
33	16	9	0	0	77	18	120	275	270	-48	-03	44	-47
34	16	0	0	0	13	10	39	59	46	-47	+39	85	-62
35	49	32	19	0	302	68	470	886	1067	-41	+08	44	-46
36	0	104	0	39	562	151	856	1448	2298	-43	N.C.	37	-44
37	1	12	0	0	338	42	393	838	983	+48	-02	40	-47
38	3	36	0	0	164	20	223	0	493	-43	+08	45	-48
39	0	0	0	0	57	15	72	0	293	+09	+11	25	N.C.
40	0	24	0	0	77	61	162	0	367	-35	+06	44	-37
Totals	564	530	51	71	4731	1261	(12,768)	12140	17331	+13	+04	42	-38

* Includes completors & non-completors who did not respond to the questionnaire; the computer did not separate them, but reported in aggregate

Table 6

Secondary Completions, reported by
Follow-up Questionnaire, 1968

	Ag.	D.E.	Health Occ.	Home Ec.	Off. Occ.	T&I	Total Voc'l	Total All	Voc'l com of total c
1	128	2	0	0	386	48	564	877	64
2	34	0	0	0	28	11	73	82	89
3	119	14	0	22	240	37	432	509	85
4	58	12	0	0	155	35	260	395	66
5	0	0	0	3	183	133	319	318	100
6	0	0	0	0	2	0	2	9	22
7	73	30	0	0	875	276	1254	1643	76
8	8	0	0	0	23	0	31	132	23
9	0	0	0	0	63	0	63	115	55
10	5	0	0	0	39	3	47	73	64
11	0	2	0	0	55	25	82	101	81
12	16	101	0	0	1160	314	1591	3027	53
13	16	7	0	15	61	48	147	225	65
14	58	168	0	0	292	51	569	994	57
15	6	0	0	0	27	13	46	75	61
16	18	0	0	0	22	8	48	54	89
17	24	13	0	0	104	13	154	172	90
18	5	0	0	0	19	0	24	67	36
19	106	100	3	0	184	178	571	599	95
20	14	0	0	0	37	0	51	96	53
21	8	0	0	0	13	0	21	51	41
22	0	0	0	0	22	0	22	23	96
23	11	0	0	0	10	10	31	48	66
24	0	0	0	0	5	0	5	29	17
25	0	0	0	0	63	0	63	106	59
26	11	0	0	0	82	0	93	197	47
27	14	0	0	0	31	16	61	134	46
28	8	0	0	0	16	0	24	54	44
29	0	5	0	0	7	10	22	12	183
30	35	29	0	0	100	27	191	394	48
31	20	14	0	0	136	102	272	231	117
32	14	5	0	0	29	5	53	97	55
33	87	0	0	0	144	0	231	277	83
34	18	0	0	0	40	16	74	33	224
35	50	149	29	0	419	155	802	990	81
36	0	244	0	67	899	302	1512	2302	66
37	0	35	0	0	610	108	753	1002	75
38	34	56	0	0	256	45	391	457	86
39	0	0	0	0	50	16	66	263	25
40	0	35	0	0	149	58	242	345	70
totals	998	1021	32	107	7036	2063	11,257	16,608	68

of cases, is in an apparently negative direction; fewer students completed vocational programs during the 1968-69 school year than during the 1967-68 year. This is particularly startling in view of the fact that, as previously indicated, enrollments were generally higher during the 1968-69 school year than during the 1967-68 year. However, the change, again, may be more apparent than real. Since many of those who completed programs but did not respond to the questionnaire are not included in the 1969 completion figures, and since the adjustment factor of 1.46 may not be accurate for a single district (as opposed to the whole State; i.e., too high or too low), it is assumed that the most nearly correct figures are those which are either very high or very low, and that these indicate primarily the direction of change, not the amount. In addition, it must be remembered that base figures are absolute, and do not reflect changes in the general population, and are not proportionally weighted.

The conclusions that may be drawn from this information are that: The general increase in enrollments in vocational education programs throughout the State, was primarily in grades 10 and 11, and a general decrease occurred in 12th grade enrollments, as reflected in the apparent decrease in completions, or that many people enroll in programs, but drop out of them very early. However, it should be borne in mind that district reports to the Vocational Division show an increase, from 11,257 to 12,768 (+13%), and that the completions for 1968-69 shown in the table do not include completors who did not respond to the questionnaire. Thus, in districts in which changes are shown in the middle ranges, there may have been no real change, or any change was only negligible, as indicated by the general rise in completions throughout the State.

Post-Secondary Completions (Table 7). Post-secondary reports of completions by follow-up questionnaire (as by Exit Form) were generally inadequate, and they are shown here as they were actually reported by responders. Completions, as reported in OE Form-3138, are probably more accurate in that they came from the institutions directly. Those reported in the following tables are based on responses to the questionnaire only, and in general should be interpreted in the same manner as the secondary level reports.

The notably large positive percentages of change in completions reported from 1968 to 1969 is probably due in large part to the very poor responses of the institutions in returning Exit Forms in 1967-68, and the resultant limitations on the number of questionnaires sent to and returned by ex-students. Improvement of reporting during 1968-69 further compounds the increases shown.

Follow-Up

The method by which the follow-up was conducted was discussed in the preceding section, Procedures of the Study. Returns on the questionnaire were discussed under Results, Page 5.

Secondary Follow-Up (Table 8). The figures reported in this and following sections are adjusted by the specially derived factors of 1.46 for 1969, and 1.6 for 1968, but information about completing non-responders

Table 1

Post-Secondary Completions, reported by
Follow-up Questionnaire, 1969

st.	Ag.	D.E.	Health Occ.	Home Ec.	Off. Occ.	Tech.	T&I	Total	%Chg. from '68	Non- Resp.
41	0	0	0	0	0	0	17	17	*	13
42	0	0	0	0	6	20	8	34	+66	32
43	0	0	6	0	38	3	68	115	+100	123
44	0	0	8	0	17	0	94	119	+16	111
45	0	0	0	0	7	6	5	18	+89	35
46	0	17	27	0	30	53	80	207	+31	0
47	0	0	28	2	50	31	97	208	-01	402
48	0	0	49	0	0	26	28	103	+91	0
tals	0	17	118	2	148	139	397	821	+42	716

Post-Secondary Completions, reported by
Follow-up Questionnaire, 1968

st.	Ag.	D.E.	Health Occ.	Home Ec.	Off. Occ.	Tech	T&I	Total	Non- Resp.
41	*	*	*	*	*	*	*	*	*
42	0	0	0	0	5	5	1	11	*
43	0	0	0	0	0	0	0	0	*
44	0	0	12	0	34	0	54	100	*
45	0	0	0	0	2	0	0	2	*
46	0	8	0	0	49	15	70	142	*
47	0	2	0	2	60	51	96	211	*
48	0	0	0	0	0	3	6	9	*
tals	0	10	12	2	150	74	227	475	*

* not reported

** includes both completors and non-completors; portion who were completors is not known.

is not indicated, and their number is shown only as a part of the total non-response group. A telephone survey of non-responders was made to verify the distribution indicated by responders. Figures for 1968 are from those ex-students who responded to the questionnaire for the second time; no verification of response figures was made.

The table reveals that in the State as a whole, the highest proportion (80%) of those who left or graduated from school in 1969 are either working full time in an unrelated occupation (11%) are neither in school nor at work (38%), or have continued their education in a baccalaureate program (31%). Comparatively, of those who completed or left school in 1968, a larger proportion have continued their education in both related (13%) and unrelated (23%) non-baccalaureate fields (36%), and fewer of them (18%) are in baccalaureate programs, but still a large percentage of them (31%) are neither in school nor employed.

Post-Secondary Follow-Up. The figures shown in the following table are those derived from a tabulation of responders to the questionnaire. No attempt was made to adjust the figures by any constant, and the distribution of response figures was not verified.

Although based on limited returns it is notable that a high percentage of those responding (86%) report they were working full-time in the same or a related field to that in which they were trained, while only a relatively small number were employed in unrelated work (18%), a still smaller percentage were continuing an educational program, except that a rather large percentage (26%) of those who left or completed in 1969 were enrolled in a baccalaureate program. Although this distribution has not been verified, it is encouraging in regard to the quality and appropriateness of training.

Non-Vocational Follow-Up. As noted previously (pp. 4, 9), a sample survey of non-vocational students was conducted for comparative purposes. The following table reports figures as they were returned, without adjustments. As non-vocational students obviously cannot be either at work or in training in a field the "same or related" to earlier programs, they are reported simply as being at work or in vocational/technical training or baccalaureate programs. The sample is assumed to be reasonably representative of all students in the State who were not in vocational programs during high school.

Table 10

Responses of Non-Vocational Students Surveyed

Number continuing education in non-baccalaureate program	
Vocational/Technical	20 (.02)
Other non-baccalaureate	35 (.07)
Number at work	74 (.16)
Number in baccalaureate program	227 (.48)
Number "other"	115 (.27)
Number of non-responders	262
Total number surveyed	733

Number cont'g non-Baccalaureate educ. (voc'l)			Number at work Full Time			Number "Other" *	Number in Bacc.	Number of Non-Responses	Total Surveyed								
Same, Related	Unrelated	Same, Related	Unrelated														
68	69	68	69	68	69	68	69	68	69								
30	24	8	10	17	5	17	4	19	30	92	7	45	60	255	140	453	
31	19	10	23	5	7	3	9	16	18	34	14	39	65	240	155	347	
32	7	4	6	3	0	3	0	0	9	22	6	21	0	0	28	53	
33	14	15	25	16	6	1	3	10	34	64	22	10	58	275	162	391	
34	4	10	5	6	0	0	0	1	5	18	6	4	19	59	39	98	
35	47	36	69	30	37	24	16	37	94	169	54	174	238	886	555	1356	
36	43	33	141	43	61	109	45	156	150	217	108	298	422	1448	970	2304	
37	26	19	56	24	19	28	23	37	92	148	31	137	224	838	471	1231	
38	22	13	53	13	5	13	7	10	51	66	20	108	107	0	265	223	
39	5	0	14	3	4	4	0	4	9	33	8	28	0	0	40	72	
40	7	10	16	8	10	15	5	24	23	60	18	45	74	0	153	162	
Totals		537	482	987	559	364	551	262	767	1314	2654	755	2210	3080	12140	7299	19363
% of res.		13	07	23	08	09	08	06	11	31	38	18	31				

* "Other" -- Military, unemployed and available, not in labor force or status unknown.

Note: Percentages may not add accurately due to overlapping answers by some respondents.

Table 9

Post Secondary Follow-up

Number continuing non-baccalaureate educ. (voc'l)			Number at work Full Time			Number "Other" *		Number in Bacc.		Number of Non-Responses		Total Surveyed	
Same, Related	Unrelated		Same, Related	Unrelated		68	69	68	69	68	69	68	69
41	f	1	f	0		f	5	f	1	f	13	f	23
42	0	0	4	0		0	7	4	2	3	33	13	43
43	0	0	0	0		0	*	0	23	0	123		
44	12	1	6	10		15	14	6	14	51	111	95	168
45	0	0	0	6		2	7	0	3	2	35	4	52
46	5	2	79	91		24	3	12	3	0	0	133	110
47	5	0	78	32		24	37	0	0	93	402	212	485
48	0	1	3	59		3	0	0	20	0	0	8	85
Totals	22	5	170	213		68	73	22	66	149	717	465	966
	07	02	54	86		22	30	07	26				

* "Other" -- Military, unemployed and available, not in labor force or status unknown
 * -- No responses to the questionnaire
 * f -- No records on tape

Note: Percentages may not add accurately due to overlapping answers by some respondents.

It is notable that nearly half (48%) of the responding ex-students were in baccalaureate programs at the time they responded, while only nine percent were enrolled in other than baccalaureate programs. As can be expected, the percentage of past non-vocational students in baccalaureate programs is higher than past vocational students (48% cf. 31% and 18%). On the other hand, it is also notable that the percentage of non-vocational students at work full time is almost as high as that of past vocational students (16% cf. 19% and 15%). When it is also considered that there is a smaller percentage of non-vocational students reported in every category but baccalaureate programs, the closeness of the employment percentage takes on some significance. It would appear that ex-students without special training find it almost as easy to obtain work as ex-students who have had some special training. In addition, though the percentage of ex-students who were not in secondary vocational programs but who are attending post-secondary vocational training is small, as might be expected, the percentage of ex-secondary vocational students continuing their vocational training in post-secondary institutions is also small.

It is impossible, at this time, to interpret precisely what these comparative percentages mean, but it can be surmised that either many wrong people have been involved in secondary vocational programs, the wrong programs are being offered, or that the training is some way generally inappropriate in terms of employer needs.

Cost Analysis

Cost analyses reported in the following tables are based on the duplicated count of enrollments reported by each school. Cost figures are those reported by the districts and institutions to the Vocational Division for end-of-year reimbursement with State and Federal funds. In the case of secondary reports, figures by school were not available, nor was information on the amounts of local or regular distribution unit funds contributed to the programs on either school level. In addition, no attempt was made to calculate depreciation on equipment, facilities, etc., and equipment costs for the year are not included; costs are based on salaries, supplies, travel, and similar operating and maintenance costs only. Gaps could not be filled in regard to some of the information; e.g., in some areas, cost figures were not available, while in others no enrollments were reported. Due to these gaps figures for the State on both school levels are reported as medians of the costs by program rather than means.

Secondary Program Costs (Table 11). It should be noted at the outset that the money expended in the conduct of all programs shown was distributed in some manner among grades ten through twelve, and it could therefore be argued that the figures should be divided by approximately three to yield more logical estimations of cost--and subsequently, success. In any case, the highest median cost for the year occurred in home economics programs, and the lowest in office occupations programs, while the single most expensive program was an agricultural program at \$1,597.66 per student enrolled, and the single least expensive program was in office occupations at \$2.63 per student enrolled.

Post-Secondary Program Costs (Table 12). It has been noted, Page 23, that considerable gaps exist in the data treated in these tables; therefore, the information shown should be used for discussion purposes only--and perhaps as an encouragement to improvement in reporting. Due to these shortcomings in the data, discussion on this topic will be dispensed with.

Effectiveness Analysis

"Effectiveness" is defined in this report in terms of "successful" former students, who in turn may be described as those who:

1. Entered full time employment in the field for which they were trained or a related field; or,
2. entered post-secondary educational programs in the same or a related field.

In addition, it was assumed that some portion of the former students now serving in the military forces would otherwise be employed in the same or a related field or would be pursuing studies in the same or a related field. However, what their number is cannot be determined, and they are therefore not included in the following summary of data.

This definition of "successful" is recognized as being somewhat arbitrary and perhaps limiting, but without further information and knowledge of the objectives proposed and achieved in each vocational program, other definitions of "successful" are difficult to justify, and their achievement may be impossible to measure.

Secondary Effectiveness (Table 13). As evident in the following table, definite statements about the effectiveness of programs as a function of the "success" of former students are difficult to make due to limited information. In addition, not so evident is the fact that the figures are based on absolute values, and are not proportionally weighted; thus, it is impossible to make very valid comparisons among programs, either within a district or among districts.

Bearing these limitations in mind, the following interpretations of the data have been made. Office occupations programs appear to be relatively inexpensive when compared to the costs of other programs. This might be due, in large part, however, to the fact that, in general more students enroll in such programs, supplies, etc., are often not as expensive, and chances of success of the students are higher as a function of the higher enrollment and completion figures. Agricultural occupations programs, on the other hand, appear to be the most expensive; once again, however, this kind of interpretation must be tempered by the understanding that the cause could lie in lower enrollment figures, a need for more expensive supplies, or other unmeasured variables.

Perhaps the most significant information apparent in the table is the frequency of occurrence of the triple asterisk which designates

Table 11

Secondary Cost/Student Enrolled, 1969
Grades 10-12

	Ag.	D.E.	Health Occ.	Home Ec.	Off. Occ.	T&I	Total
1	96.89	70.22	11,000.00*	**	31.82	337.47	69.78
2	81.41	0	0	0	32.73	115.11	56.10
3	129.67	58.82	**	5,664.00*	7.17	66.99	58.69
4	96.30	71.87	0	0	15.18	111.63	54.80
5	0	15.07	0	1,001.66	73.80	298.70	100.94
6	0	0	0	0	632.50	0	632.50
7	133.92	41.33	0	0	69.47	217.77	96.80
8	50.54	0	0	0	115.27	**	61.42
9	422.59	0	0	0	44.24	1,239.00	189.19
10	17.69	**	0	**	3.40	39.53	12.85
11	0	**	0	293.55	13.45	152.32	63.39
12	4,744.00*	99.87	22.76	43.78	23.08	92.51	35.09
13	1,597.66	225.92	975.00	139.89	35.93	223.51	133.97
14	127.29	151.41	0	**	44.63	138.63	63.63
15	195.78	0	0	0	46.79	149.73	96.05
16	182.32	164.06	0	0	31.79	150.25	86.48
17	375.02	0	0	0	20.52	80.72	30.09
18	52.87	**	0	0	32.93	0	37.56
19	197.99	128.89	25.52	0	64.97	150.71	122.65
20	119.84	0	0	0	53.60	0	72.84
21							
22	0	0	0	0	2.63	0	2.63
23	233.87	0	0	0	168.90	578.84	255.29
24	0	0	0	0	179.84	**	179.84
25	0	0	0	0	20.00	0	20.00
26	146.40	0	2,537.00*	578.55	72.84	33,622.00*	144.07
27	165.60	0	0	0	44.38	316.89	124.47
28	145.96	0	0	0	67.04	0	93.64
29	0	171.42	0	0	13.25	36.00	29.94
30	124.65	102.21	0	0	2.87	81.07	30.59
31	100.59	61.20	0	0	99.61	121.92	106.10
32	96.95	2,400.00*	0	0	21.22	178.20	46.67
33	501.20	113.42	0	0	11.18	51.85	41.07
34	271.31	0	0	0	18.93	175.00	80.21
35	95.39	165.14	107.19	0	40.63	326.44	84.11
36	0	67.99	0	316.95	38.14	217.40	65.76
37	**	216.51	**	**	14.55	170.90	30.05
38	0	74.07	0	0	85.67	739.04	141.71
39	0	0	0	0	8.21	47.02	12.20
40	0	124.43	0	0	15.78	130.95	43.75
Median	\$ 98.27	74.65	37.00	307.25	32.63	169.50	63.70

* No enrollment records on tape

** No cost records available

Post-secondary, Cost/Student Enrolled, 1969

	Ag.	D.E.	Health Occ.	Home Ec.	Off. Occ.	Tech	T&I	Total
41	4450.00*	0	21533.00*	0	768.65	**	4601.27	1176.65
42	0	0	133.52	0	151.59	**	844.42	291.21
43	0	0	**	0	**	0	**	**
44	0	0	0	0	505.05	**	940.45	410.21
45	0	429.33	900.22	0	578.05	2374.21	995.02	1213.49
46	109.00*	10107.50	959.62	**	836.61	2934.83	1216.15	1268.40
47	14608.00*	4738.50	1030.00	0	824.46	1846.58	816.30	1070.90
48	1	0	0	20850.00*	70126.00*	34727.00*	3844.02	3844.02
Median \$	19248.00*	4738.50	929.92	20850.00*	665.50	2374.21	1274.50	937.00

* No enrollment records on tape

** No cost records available

Table 13

Cost/"Successful" Student, 1969
Secondary

	Ag.	D.E.	Health Occ.	Home Ec.	Off. Occ.	T&I	Totals	
1	6026.80	1236.00	*	**	1030.53	4851.25	2177.84	
2	6920.00				1497.75	***	3411.00	
3	5187.00	2412		*	194.00	957.00	1662.67	
4	3428.40	3881			347.31	1521.00	1937.40	
5		***		***	1715.19	4608.57	2613.67	
6					6325.00		6325.00	
7	8504.25	2080.66			2242.60	3651.92	2893.70	
8	***				14525.00	***/**	20085.00	
9	***				730.00	***	4200.10	
10	1168.00	**			323.00	***	1011.00	
11	**			***	421.50	***	2960.00	
12	*	2956.20	***	***	677.35	2021.64	1000.24	
13	***	***	*	5176.00	3431.50	8791.66	8418.00	
14	16676.00	3369.00		**	1407.42	3720.00	2045.18	
15	7440.00				1193.25	3444.00	2609.50	
16	***	***			2830.00	***	12800.00	
17	***	**			511.46	***	1810.00	
18	***	**			2964.00		5634.00	
19	20525.00	3609.00	970.00		1329.37	4705.66	3688.73	
20	9228.00				2015.40		3217.50	
21	***				4898.00		9854.00	
22					100.00		100.00	
23	***				***	***	***	(21,700.00)
24					6834.00	**	6834.00	
25					775.00	***	4000.00	
26	7564.33		*	***	3448.91	***	7029.73	
27	2881.60				603.70	12042.00	2010.43	
28	***				2011.25		4237.25	
29		***			***	***	***	(3414.00)
30	32536.00	3271.00			180.05	702.66	1723.36	
31	***	1346.50			1859.50	5169.60	3966.76	
32	***	*			840.00	***	2963.57	
33	***	***			391.38	933.33	2225.75	
34	2894.00				582.25	875.00	1363.60	
35	3843.00	3715.75	557.40		1350.78	8161.14	2527.63	
36		2133.92		3922.37	1434.11	4739.32	2220.26	
37	**	4655.00	**	**	539.23	6551.33	1098.12	
38		2024.66			2478.80	4105.77	2970.66	
39					3442.00	752.33	1424.75	
40		1327.33			694.57	2500.00	1428.24	
Median \$	6179.50	2284.50	749.50	3999.50	1329.50	3829.50	2999.50	

* No follow-up records

** No cost data available

*** No "successful" students reported

Table 14

Cost/"Successful" Student, 1969
Post-Secondary

	Ag.	D.E.	Health Occ.	Home Ec.	Off. Occ.	Tech	T&I	Total
1				*	*	*	32674.25	64100.00
2	*		*		***	**	35299.50	16652.42
3			756.66		1721.38	**	***	4496.00
4			**		**		**	**
5					4293.00	**	5830.80	4193.33
6		2026.85	4645.16		2979.19	8441.64	613.90	4219.16
7	*	***	3402.31	**	2014.07	4524.54	5355.76	4293.80
8	***	***	2551.59		***	13849.41	8905.13	6887.32
Median \$	---	2026.85	2499.50	---	2499.50	7499.50	8299.50	7000.00

* No follow-up records

** No cost data available

*** No "successful" students reported

A P P E N D I X

programs from which no students have been reported as "successful". This information can be interpreted in several ways. First it might mean simply that any successful students who may exist did not answer the questionnaire. It may mean that students are being trained in the wrong skills or for the wrong jobs and are unable to find employment; on the other hand, it may mean that the wrong students are being trained, and that none of them are seeking employment (or are looking in the wrong places) or going to school for further training. It could also be any combination of these three factors.

Post-Secondary Effectiveness (Table 14). Due to the gaps in information, it is almost impossible to make valid interpretations of the data shown in Table 14. Perhaps the most significant information apparent is in the number of programs for which no "successful" students are reported. The interpretation of this information is the same as that made in regard to secondary programs. Another significant fact that is apparent, however, is that post-secondary programs, compared to secondary programs in absolute dollars per successful student are generally somewhat more expensive. Investigation may need to be done as to the reasons.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

On the basis of the information discussed previously, it is concluded that:

1. The method of deriving the populations used in the study was adequate.
2. The procedures used need to be improved to acquire better enrollment data and elicit better responses to the questionnaire.
3. The method of cost-effectiveness analysis is not fully adequate.
4. Enrollment data, especially concerning post-secondary schools, was not adequate.
5. Questionnaire returns must be considered poor.
6. Local report information was generally poor, apparently due to poor reporting and the computer program which separated non-responders from responders and combined completors and non-completors in the count of non-responders.
7. Secondary enrollments are increasing across the State, but changes by school and/or district cannot be definitely verified, though in most cases, enrollments appear to be on the rise.

8. Secondary completions are increasing across the State.
9. Post-secondary completions appear to be increasing, but due to poor reporting in 1967-68, and apparent improved reporting in 1968-69, amounts are impossible to determine.
10. Only small percentages of past secondary students are continuing, immediately following high school, in either training or work in non-professional fields. However, two years after leaving high school, ratios appear to increase somewhat, suggesting that students are generally unsettled in career choices until they have been out of school for some time, and/or that vocational courses are sometimes undertaken with no vocational objective.
11. Post-secondary students tend to go to work in the occupational areas in which they trained, suggesting that programs are preparing the right people for the right jobs, at least in the majority of cases.
12. Programs at the secondary level appear to be either unrelated to requirements of the world-of-work, or the wrong students are being enrolled in the programs, or the wrong programs are being offered.
13. A disproportionate number of students (both vocational and non-vocational) are entering baccalaureate programs their first year after leaving high school, and not continuing in such programs during the second year.
14. Program costs are highly variable without apparent reason.

Recommendations

It is recommended that:

1. Project "Follow-Up" be continued.
2. Surveys of groups of students who have been sent the follow-up questionnaire should be conducted without regard to previous response or non-response.
3. Continuing efforts be made to refine the cost-effectiveness analysis, including acquisition of data by school, development of procedures for handling capital expenditures and administrative costs, and the reasons for the large differences in enrollment costs among programs.
4. The method of acquiring enrollment data be examined and an improved technique to be designed for the purpose.
5. Secondary level programs be evaluated to determine their relevance to world-of-work requirements, and their enrollment procedures to determine the vocational objectives of enrolling students.
6. Additional demographic data be gathered to provide for more precise trend analysis and projective potential.

FOLLOW-UP QUESTIONNAIRE

DEAR FORMER STUDENT

This is your follow-up questionnaire. Please respond and mail within ten days.

PLEASE ANSWER ITEMS - BOTH SIDES
CIRCLE OR CHECK APPROPRIATE ANSWER

PLEASE ANSWER ITEMS BOTH SIDES CIRCLE OR CHECK APPROPRIATE ANSWER	
DISTR.	1. Are you still in High School yes no
SCHOOL	2. Did you graduate from H.S. yes no
COURSE NAME	3. If employed full time, how many months did it take to obtain your job? 0 1 2 3 4 5 6 more
	4. Are you on active duty in the military forces yes no
	5. Are you enrolled in post-secondary school? full time ☐ part time ☐ a. _____ not at all ☐ NAME OF SCHOOL
IDENTIFICATION NUMBER	b. _____ LOCATION
	c. Level 4 year college program ☐ 2 year liberal arts ☐ vocational or technical ☐ other _____
	d. Is your post-sec. course the same or related to the Voc. course printed on the left? yes no
6. Did you seek employment in the occupation for which you trained in the course printed to the left? yes no	
7. What is your present job title? _____	
8. What is the name of the company for which you work? _____	
9. Present name and home address (if different from name and address on the left): _____ _____ _____ _____	

10. Compared to the occupation for which you were trained by school vocational course printed on reverse side, you are now employed in:

The same occupation full time ☐
part time ☐

A related occupation full time ☐
part time ☐

An unrelated occupation full time ☐
part time ☐

Are you unemployed and seeking work ? yes no

If you are unemployed but not seeking work, why are you not seeking work?

a. Illness ☐ c. Peace Corps, or VISTA ☐ e. In school ☐

b. Housewife ☐ d. On LDS Mission ☐ f. Other ☐

11. Do you believe that your school vocational and technical training was important in helping you

	yes	no
a. Get a job		

	yes	no
b. Enjoy success on the job		

12. Do you believe that your school vocational courses were at least as important as general education courses.

yes no

- 13. What abilities and skills are needed in your job that were not included in the course printed on the reverse side.**

14. Check hourly wage for full time work or if not working full time, for most significant (in hours) part time work.

g. Under \$1.00 ☐ e. \$2.51 - \$3.00 ☐

b. \$1.01 - \$1.50 ☐ f. \$3.01 - \$3.50 ☐

e. \$1.51 - \$2.00 ☐ g. \$3.51 - \$4.00 ☐

d. \$2.01 - \$2.50 ☐ h. over \$4.00 ☐

15. Are you satisfied with the occupation in which you are now employed? Please comment.

THANK YOU FOR PERFORMING A VALUABLE SERVICE TO YOUR SCHOOL
AND STATE.

MAIL TO: "FOLLOW UP"
1400 UNIVERSITY CLUB BLDG.
SALT LAKE CITY, UTAH 84111

DD-ZW 16540-0

NON VOCATIONAL QUESTIONNAIRE

FOLLOW-UP QUESTIONNAIRE
Four School Study--1968-69 School Year

1. Are you still attending high school full-time? yes _____ no _____
2. Did you graduate from high school? yes _____ no _____
3. Are you on active duty in the military forces? yes _____ no _____
4. Are you presently employed? yes _____ no _____

If yes, are you employed:

a. Full-time _____

b. Part-time _____

What is your hourly wage:

What is your hourly wage:

1. Under \$1.00 _____
2. \$1.00-\$1.50 _____
3. \$1.50-\$2.00 _____
4. \$2.00-\$2.50 _____
5. \$2.50-\$3.00 _____
6. Over \$3.00 _____

1. Under \$1.00 _____
2. \$1.00-\$1.50 _____
3. \$1.50-\$2.00 _____
4. \$2.00-\$2.50 _____
5. \$2.50-\$3.00 _____
6. Over \$3.00 _____

c. Would you like to work in your present occupational field for the next 5 years?

1. Definitely _____
2. Probably _____
3. Uncertain _____

4. Probably not _____
5. Definitely not _____
6. Other _____

5. a. If you are not employed, are you presently seeking work? yes _____ no _____

b. If you are not employed, and not seeking work, check the appropriate reason:

1. Illness _____
2. Housewife _____
3. In the Peace Corps, VISTA, etc. _____

4. LDS Mission _____
5. Other _____

6. Please check the name of any school or schools in which you have been enrolled as a full-time student since you left high school.

- _____ 1. None
- _____ 2. University of Utah
- _____ 3. Brigham Young University
- _____ 4. Utah State University
- _____ 5. College of Eastern Utah
- _____ 6. Dixie College
- _____ 7. Snow College
- _____ 8. Weber State College
- _____ 9. Westminster College

- _____ 10. Stevens-Henager College
- _____ 11. LDS Business College
- _____ 12. Utah Technical College - Provo
- _____ 13. Utah Technical College - SLC
- _____ 14. Another junior college
- _____ 15. Another four-year college
- _____ 16. Another business college
- _____ 17. Another technical or trade school
- _____ 18. Other

FOLLOW-UP QUESTIONNAIRE

Four School Study--1968-69 School Year

Page 2

7. Are you currently attending one of the schools checked in Question Number 6?

- ☐ yes--I am currently attending school.
☐ no --I am not currently attending school.

8. Please check the name of the school which you are currently attending.

- | | |
|--|--|
| ☐ 1. None | ☐ 10. Stevens-Henager College |
| ☐ 2. University of Utah | ☐ 11. LDS Business College |
| ☐ 3. Brigham Young University | ☐ 12. Utah Technical College - Provo |
| ☐ 4. Utah State University | ☐ 13. Utah Technical College - SLC |
| ☐ 5. College of Eastern Utah | ☐ 14. Another junior college |
| ☐ 6. Dixie College | ☐ 15. Another four-year college |
| ☐ 7. Snow College | ☐ 16. Another business college |
| ☐ 8. Weber State College | ☐ 17. Another technical or trade school |
| ☐ 9. Westminster College | ☐ 18. Other |

9. Please check the type of program in which you are enrolled.

1. ☐ Four-year college program

Other than four-year program:

2. ☐ General education
3. ☐ Vocational or technical education
4. ☐ Other

11. If the answer to Question Number 7 is no, why did you leave school?

- ☐ 1. Graduated
☐ 2. Completed the course
☐ 3. Had a job offer
☐ 4. To get married
☐ 5. To look for a job
☐ 6. Not interested in the course
☐ 7. To change schools
☐ 8. Academic difficulty
☐ 9. Other

**INSTRUCTION
AND CODE BOOK**
September 1969

Utah State Board of Education

PROJECT FOLLOW-UP

FOLLOW-UP INSTRUCTION AND CODE BOOK

Research Coordinating Unit
of the
Utah State Board for Vocational
Education

Send all information to:

"Follow-Up"
1400 University Club Building
Salt Lake City, Utah 84111
Telephone (801) 328-5891

John F. Stephens, Director
Elvin Ossmen, State Specialist
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INTRODUCTION

This code book has been developed to help the vocational teachers and instructors in secondary and post-secondary schools complete the "Student Exit Form" of Project Follow-Up. One way to measure the quality of Utah's vocational training is to measure the success or failure of the student after he or she leaves high school or post-secondary school. There will then be a basis for evaluation, improvement and change of the vocational and technical programs. Please impress upon the students the importance of this follow-up by reading to them the explanation on page 2. Accurate reporting will help future students, their schools and their teachers.

One good way to approach the completion of the Student Exit Form is to treat this as an exercise in filling out job applications. Much of the information asked for on the Exit Form is also required on most job applications and this would be an excellent opportunity to train students to fill out forms neatly and accurately.

All districts and schools in Utah are given a code number for use by the computer. The U.S. Office of Education has coded all vocational-technical courses. Please make sure the correct and complete codes are entered in the appropriate box on the Exit Form.

We ask you to pay particular attention to supplying Social Security Numbers. There have been some questions raised concerning the invasion of privacy. Our only concern is to raise the quality of vocational and technical education by the use of a personal questionnaire. The best way to process this information is according to the student's Social Security Number.

In this book you will find the following information:

1. An explanation of Project Follow-Up.
2. A list of all classes for which Exit Forms should be completed.
3. Instructions and clarifying statements on how to fill out the Exit Form.
4. A list of district, school, and course codes.
5. A sample of a completed 1969-1970 Exit Form.

Please supply all necessary information to the students so that they can complete the Exit Forms. We are asking the instructors to check the forms over before sending them to us, as all incorrect or incomplete forms will be returned for completion. If you have any further questions, we will be most happy to answer them. Telephone 328-5891.

Thank you for your cooperation.

WHY Project Follow-up?

Project Follow-up is conducted by the Utah State Board of Education in order to increase the ability of persons responsible for vocational education in Utah to evaluate and improve programs of vocational and technical training. The method chosen to achieve this end is to follow the progress of graduates of vocational programs in the world of work. A follow-up will enable teachers, principals, superintendents, administrators, and State Office personnel to evaluate present programs and to plan for short-term and long-term improvements in the scope and content of occupational preparation. It will also enable us to measure the effectiveness of vocational programs as a function of dollars invested--cost-effectiveness.

Project Follow-up has two phases:

1. Completion of an Exit Form while the student is in school.
2. Completion of a Mailout Questionnaire after the student leaves school.

The Student Exit Form will supply basic information about each student: his name and address, the school he attended, the course he took, and his Social Security Number. The Social Security Number is very important because all of the information vital to Project Follow-up will be processed by an electronic computer and the best way to identify each student on the computer is by means of the Social Security Number.

Successful and complete returns on the Student Exit Forms are essential to the success of the second phase of Project Follow-up, the Mailout Questionnaire.

The Mailout Questionnaire will be mailed to former vocational students in September of each year for five years after they graduate or leave school. This questionnaire will ask about their current labor market status (employed, unemployed, in school, in Armed Forces, etc.), and current occupation (related to school vocational courses or not). We will also ask their opinions of the vocational training they received in school (was it helpful in gaining a job and being successful at it?).

Replies to these questionnaires from each individual vocational student will provide data which will enable us to answer questions such as the following:

Is the former student working in the occupation for which he was trained, or a related occupation?

What percentage of vocational students find employment in the occupation for which they were trained, or in a related occupation?

Was the former student hired because of his training?

What abilities or skills were needed on the job that were not included in his training?

The importance of Project Follow-up is clear and its success depends upon YOUR cooperation. We thank you for your help and for performing this service for your school and State.

WHO Should Fill Out an Exit Form?

I. IN HIGH SCHOOL

Any student in grades 10, 11, and 12 who registers in any of the classes listed below should complete an Exit Form prior to leaving the class for any of the following reasons:

- a. complete the class
- b. drop the class before completing it
- c. drop out of school
- d. move or change schools
- e. graduation

If a student is taking a year-long course and therefore is enrolled in the course during two consecutive terms, (quarters, semesters, etc.) an Exit Form should not be sent in for that student at the end of the first term, (quarter, semester, etc.). A form should be sent in only when the student leaves the course for any reason or completes the entire course.

If an individual enrolls in more than one of the following classes, whether simultaneously or in sequence, then that student should complete questions 9, 10, 12, 13, 15 for each class. See sample, page 17.

A. Office Occupations

1. Full-year typing classes, and subsequent semester classes.
2. Full-year shorthand classes, and subsequent semester classes.
3. All data processing classes, except orientation classes.
4. All bookkeeping classes.
5. All office practice classes.
6. All business machine classes.
7. All filing classes.
8. All cooperative business classes.
9. All business simulation classes.

B. Distributive Education

All Distributive Education Classes

C. Home Economics

All gainful Homemaking or Home Economics Classes

D. Health Occupations

Health Occupations courses entitled "An Overview of Health Occupations"

E. Trades and Industry

All T & I courses which are taught in two-hour or longer time blocks. See the section on Course Codes in this instruction book for a list of courses included under Trades and Industry.

F. Vocational Agriculture

All vocational agriculture classes

G. Vocational Overview Courses

PEDAPOP

American Industry

Over the Shoulder

II. IN POST-HIGH SCHOOL INSTITUTIONS

(Technical Colleges, Junior College programs, etc.)

All students enrolled in less than baccalaureate level technical programs should complete an Exit Form under the following circumstances:

- a. graduation
- b. completion of the program of studies in a particular technical area
- c. dropping out of school before completing the program
- d. changing schools
- e. changing courses of study (example: changing from secretarial studies to cosmetology)

Unlike high school students, post-high school students need not list each class (such as Machine Shop Theory I and Machine Shop Theory II) under vocational courses, but instead should complete column #1 for questions 9, 10, 12, 13, 15, (as well as the rest of the form.)

INSTRUCTIONS

HOW To Fill Out The Student Exit Form

First Please explain to the students why they are being asked to complete Student Exit Forms by reading to them the explanation of Project Follow-Up on page 2. Also, impress upon them the similarity between the Exit Form and a job application and the necessity to fill in such forms neatly and accurately. A specific explanation may be needed as to why certain information is required on the Exit Form. We have tried to supply this information below so that teachers may explain these items to their students.

Next Proceed through the form, explaining each part to the students and supplying the appropriate information to them. A sample Exit Form is included on page 17 of this book.

Box #2 Social Security Number - Individual students will be identified according to their Social Security Number. If students do not have a Social Security Number, they should apply for one immediately. It is extremely difficult to process any forms which lack Social Security Numbers.

Box #3 District Code - Consult the yellow colored section, pages 7-10. Locate the district in which your school is located. Each district has a two digit number from 01 through 40. Post-secondary schools and "other" schools have district numbers from 41 through 48. Write the number which applies to your district in the space provided under "District Code."

Box #4 School Code - Locate your school and the corresponding number. All high schools have numbers 704, 706, 708, 710, 716, or 718. All post-secondary and "other" schools have a number 800 through 807. Write the number corresponding to your school under the space provided for "School Code."

Box #9 Course Code - Consult the blue colored section, pages 11-16. There are seven general areas in which a student may take vocational courses. These general areas may be further broken down into groups. The groups are then classified as to the specific course. For example: if a student is enrolled in an agricultural course, the general area code is 01., which includes all agriculture courses. If the student is taking an Ornamental Horticulture class, the code for that class is 0500. The entire course number for that particular class is 01.0500. This should be inserted in the space(s) provided for the "Course Code." Another example may be that of a student enrolled in a Trades and Industry course (code = 17.), taking a course in the area of Construction and Maintenance (code = .10000) and specifically in Masonry (code = .1004). The entire code number which should be inserted is: 17.1004. It is very important to have the correct occupational code number in the appropriate box. The keypunch operators will not change the numbers if you have written them incorrectly. Therefore, please be certain of the course numbers. EACH COURSE CODE SHOULD HAVE SIX DIGITS. (This coding must be followed for each vocational course listed in columns #1-#4.)

Box #10 Course Name - Please enter the name of the course in which the student was enrolled in the space under "Course Name." This course name should correspond as closely as possible to the course number listed in the code book. A course name must be given to each vocational course listed in columns #1 - #4.

Box #12 - The quality of the student's performance in class is not the relevant criteria. We simply want to know if the student was enrolled in each class for the required length of time.

Box #15 - A cooperative work-study program is one in which students in a vocational-technical program spend a portion of their time in organized on-the-job training related to their school vocational courses. Among the features of such a program should be:

1. a correlated instruction program in school
2. teacher coordination and supervision
3. may or may not involve releasing the student from school
4. should involve at least 180 hours of on-the-job work per year

NOTE: Beginning with the school year 1969-1970, the Exit Forms will be completed in the homerooms only. Each vocational class will be recorded on one Exit Form at the end of the semester and/or the end of the year, depending on the length of the course.

PROJECT "FOLLOW-UP"

"CODE BOOK" FOR VOCATIONAL INSTRUCTORS

<u>District</u> <u>Code</u>	<u>School</u> <u>Code</u>		<u>District</u> <u>Code</u>	<u>School</u> <u>Code</u>
01		<u>ALPINE SCHOOL DISTRICT</u>	07	
	704	American Fork High School		704
	708	Lehi High School		706
	712	Orem High School		708
	716	Pleasant Grove High School	710	710
				712
02		<u>BEAVER SCHOOL DISTRICT</u>	08	
	704	Beaver High School		704
	708	Milford High School		708
03		<u>BOXELDER SCHOOL DISTRICT</u>		712
	704	Bear River High School		716
	708	Box Elder High School	09	
04		<u>CACHE DISTRICT</u>		704
	706	Sky View High School		706
		<u>CARBON SCHOOL DISTRICT</u>	10	
	704	Carbon High School		704
	708	East Carbon High School		708
06		<u>DAGGETT SCHOOL DISTRICT</u>	11	
	704	Manila High School		704
		<u>DAVIS SCHOOL DISTRICT</u>		
		Bountiful High School		
		Clearfield High School		
		Davis High School		
		Layton High School		
		Viewmont High School		
		<u>DUCHESNE SCHOOL DISTRICT</u>		
		Altamont High School		
		Duchesne High School		
		Tabiona High School		
		U.B.A.V.C.		
		<u>EMERY SCHOOL DISTRICT</u>		
		Green River High School		
		Emery County High School		
		<u>GARFIELD SCHOOL DISTRICT</u>		
		Bryce Valley High School		
		Escalante High School		
		Panguitch High School		
		<u>GRAND SCHOOL DISTRICT</u>		
		Grand High School		

<u>District</u> <u>Code</u>	<u>School</u> <u>Code</u>		<u>District</u> <u>Code</u>	<u>School</u> <u>Code</u>	
12		<u>GRANITE SCHOOL DISTRICT</u>	18		<u>MORGAN SCHOOL DISTRICT</u>
	704	Cyprus High School		704	Morgan High School
	708	Granger High School			
	712	Granite High School			
	714	Kearns High School	19		<u>NEBO SCHOOL DISTRICT</u>
	716	Olympus High School		704	Payson High School
	718	Skyline High School		708	Spanish Fork High School
13		<u>IRON SCHOOL DISTRICT</u>		712	Springville High School
	704	Cedar City High School	20		<u>NORTH SANPETE SCHOOL DISTRICT</u>
	708	Parowan High School		704	North Sanpete High School
14		<u>JORDAN SCHOOL DISTRICT</u>	21		<u>NORTH SUMMIT SCHOOL DISTRICT</u>
	704	Bingham High School		704	North Summit High School
	706	Hillcrest High School			
	708	Jordan High School	22		<u>PARK CITY SCHOOL DISTRICT</u>
15		<u>JUAB SCHOOL DISTRICT</u>		704	Park City High School
	704	Juab High School			
16		<u>KANE SCHOOL DISTRICT</u>	23		<u>PIUTE SCHOOL DISTRICT</u>
	704	Kanab High School		708	Piute High School
	708	Valley High School			
17		<u>MILLARD SCHOOL DISTRICT</u>	24		<u>RICH SCHOOL DISTRICT</u>
	704	Delta High School		704	North Rich High School
	708	Millard High School		708	South Rich High School

<u>School</u> <u>Code</u>	<u>District</u> <u>Code</u>	<u>School</u> <u>Code</u>
31	<u>UINTAH SCHOOL DISTRICT</u>	704 708
	Uintah High School	
	Union High School	
32	<u>WASATCH SCHOOL DISTRICT</u>	704
	Wasatch High School	
33	<u>WASHINGTON SCHOOL DISTRICT</u>	704 712 716
	Dixie High School	
	Enterprise High School	
	Hurricane High School	
34	<u>WAYNE SCHOOL DISTRICT</u>	704
	Wayne High School	
35	<u>WEBER SCHOOL DISTRICT</u>	701 704 708
	Bonneville High School	
	Weber High School	
	Roy High School	
36	<u>SALT LAKE CITY SCHOOL DISTRICT</u>	704 708 712 716
	East High School	
	Highland High School	
	South High School	
	West High School	
25	<u>SAN JUAN SCHOOL DISTRICT</u>	704 708
	Monticello High School	
	San Juan High School	
26	<u>SEVIER SCHOOL DISTRICT</u>	704 708 712
	North Sevier High School	
	Richfield High School	
	South Sevier High School	
27	<u>SOUTH SANPETE SCHOOL DISTRICT</u>	704 708
	Gunnison Valley High School	
	Manti High School	
28	<u>SOUTH SUMMIT SCHOOL DISTRICT</u>	704
	South Summit High School	
29	<u>TINTIC SCHOOL DISTRICT</u>	704
	Tintic High School	
30	<u>TOOELE SCHOOL DISTRICT</u>	704 708 712 714
	Dugway High School	
	Grantsville High School	
	Tooele High School	
	Wendover High School	

			<u>Post-Secondary and "Other" Schools</u>		
<u>District</u> <u>Code</u>	<u>School</u> <u>Code</u>		<u>District</u> <u>Code</u>	<u>School</u> <u>Code</u>	
37					
38					
39					
40					

FOLLOW-UP
COURSE CODES

01.0000 AGRICULTURE

01.0100 Agricultural Production
01.0200 Agricultural Supplies
01.0300 Agricultural Mechanics
01.0400 Agricultural Products
01.0500 Ornamental Horticulture
01.0600 Agricultural Resources
01.0700 Forestry
01.0990 Other Agriculture (Specify)
01.9901 Integrated Shop

04.0000 DISTRIBUTION AND MARKETING

04.0101 Advertising Services
04.0102 Apparel and Accessories
04.0103 Automotive and Petroleum
04.0104 Finance and Credit
04.0105 Food Distribution
04.0106 Food Services
04.0107 Foreign Trade
04.0108 General Merchandise
04.0109 Hardware, Building Materials, Farm and Garden Supplies
and Equipment
04.0110 Home Furnishings
04.0111 Hotel and Lodging
04.0112 Insurance
04.0113 Management (General/Miscellaneous)
04.0114 Marketing (General)
04.0115 Mid-Management
04.0116 Real Estate
04.0117 Retailing (General/Miscellaneous)
04.0118 Transportation
04.0119 Wholesaling (General/Miscellaneous)
04.0199 Other Instructional Programs (Specify)

07.0000 HEALTH OCCUPATIONS

07.0100 Dental Services

- 07.0101 Dental Assistant
- 07.0102 Dental Hygienist (Associate Degree)
- 07.0103 Dental Laboratory Technician

07.0200 Medical Services

- 07.0201 Cytology Technician (Cytotechnologist)
- 07.0202 Histology Technician
- 07.0203 Medical Laboratory Assistant
- 07.0204 Nurse, Associate Degree
- 07.0205 Practical (Vocational) Nurse
- 07.0206 Nurses' Aide

- 07.0208 Hospital Food Services Supervisor
- 07.0209 Inhalation Therapy Technician

- 07.0211 Medical X-ray Technician (Radiologic Technologist)
- 07.0212 Optician
- 07.0213 Surgical Technician (Operating Room Technician)
- 07.0214 Occupational Therapy Assistant
- 07.0215 Physical Therapy Assistant

07.9900 Other (Specify)

09.0000 HOME ECONOMICS

09.0100 Homemaking--Preparation for Personal, Home, and Family Living

- 09.0101 Comprehensive Homemaking or Home Economics
- 09.0102 Child Development
- 09.0103 Clothing and Textiles
- 09.0104 Consumer Education
- 09.0105 Family Health
- 09.0106 Family Relations
- 09.0107 Foods and Nutrition
- 09.0108 Home Management
- 09.0109 Housing and Home Furnishings
- 09.0199 Other Homemaking (Specify)

09.0200 Occupational Preparation

- 09.0201 Care and Guidance of Children
- 09.0202 Clothing Management, Production, and Services
- 09.0203 Food Management, Production, and Services
- 09.0204 Home Furnishings, Equipment and Services
- 09.0205 Institutional and Home Management and Supporting Services
- 09.0299 Other Occupational Preparation (Specify)

09.9900 Other (Specify)

14.0000 OFFICE OCCUPATIONS

14.0100 Accounting and Computing
14.0200 Business Data Processing Systems
14.0300 Filing, Office Machines, and General Office Clerical
14.0400 Information Communication
14.0500 Materials Support, Transporting, Storing, and Recording
14.0600 Personnel, Training, and Related
14.0700 Stenographic, Secretarial, and Related
14.0800 Supervisory and Administrative Management
14.0900 Typing and Related
14.1000 Miscellaneous Office (Specify)

14.1001 Simulation Courses (Specify)

14.9900 Other, not elsewhere coded (Specify)

16.0000 TECHNICAL (ENGINEERING RELATED - POST SECONDARY LEVEL)

16.0100 Engineering Related Technology

16.0101 Aeronautical Technology

16.0103 Architectural Technology (Building Construction)

16.0104 Automotive Technology

16.0105 Chemical Technology

16.0106 Civil Technology

16.0107 Electrical Technology

16.0108 Electronics Technology

16.0109 Electro-Mechanical Technology

16.0110 Environmental Control Technology

16.0111 Industrial Technology

16.0112 Instrumental Control Technology

16.0113 Mechanical Technology

16.0114 Metallurgical Technology

16.0115 Nuclear Technology

16.0116 Petroleum Technology

16.0117 Scientific Data Processing

16.0199 Other Related Technology (Specify)

16.0500 Other Technical Education

16.0501 Chemical Technology

16.0502 Commercial Pilot Training

16.0503 Fire and Safety Technology

16.0505 Marine Technology

16.0506 Police Science Technology

16.0599 Other (Specify)

16.9900 Other (Specify)

- 17.0000 TRADES AND INDUSTRY
 - 17.0100 Air Conditioning
 - 17.0101 Cooling
 - 17.0102 Heating
 - 17.0103 Ventilating (Filtering and Humidification)
 - 17.0199 Other Air Conditioning (Specify)
 - 17.0200 Appliance Repair
 - 17.0300 Automotive Industries
 - 17.0301 Body and Fender
 - 17.0302 Mechanics
 - 17.0303 Specialization
 - 17.0399 Other Automotive Industries (Specify)
 - 17.0400 Aviation Occupations
 - 17.0401 Aircraft Maintenance
 - 17.0402 Aircraft Operations
 - 17.0403 Ground Operations
 - 17.0500 Blueprint Reading
 - 17.0600 Business Machine Maintenance
 - 17.0700 Commercial Art Occupations
 - 17.0800 Commercial Fishery Occupations
 - 17.0900 Commercial Photography Occupations
 - 17.1000 Construction and Maintenance Trades
 - 17.1001 Carpentry
 - 17.1002 Electricity
 - 17.1003 Heavy Equipment (Construction)
 - 17.1004 Masonry
 - 17.1005 Painting and Decorating
 - 17.1006 Plastering
 - 17.1007 Plumbing and Pipefitting
 - 17.1099 Other Construction and Maintenance Trades
 - 17.1100 Custodial Services
 - 17.1200 Diesel Mechanic
 - 17.1300 Drafting Occupations
 - 17.1400 Electrical Occupations
 - 17.1401 Industrial Electrician
 - 17.1402 Lineman
 - 17.1403 Motor Repairman
 - 17.1499 Other Electrical Occupations (Specify)

- 17.1500 Electronics Occupations
 - 17.1501 Communications
 - 17.1502 Industry
 - 17.1503 Radio/Television
 - 17.1599 Other Electronics Occupations (Specify)
- 17.1600 Fabric Maintenance Services
 - 17.1601 Drycleaning
 - 17.1602 Laundering
 - 17.1699 Other Fabric Maintenance Services (Specify)
- 17.1700 Foremanship, Supervision, and Management Development
- 17.1800 General Continuation
- 17.1900 Graphic Arts Occupations
- 17.2000 Industrial Atomic Energy Occupations
 - 17.2001 Installation, Operation, and Maintenance of Reactors
 - 17.2002 Radiography
 - 17.2003 Industrial Uses of Radio-Isotopes
 - 17.2099 Other Industrial Atomic Energy Occupations (Specify)
- 17.2100 Instruments Maintenance and Repair Occupations (Including watchmaking and repair)
- 17.2200 Maritime Occupations
- 17.2300 Metalworking Occupations
 - 17.2301 Foundry
 - 17.2302 Machine Shop
 - 17.2303 Machine Tool Operation
 - 17.2304 Metal Trades (Combined)
 - 17.2305 Sheet Metal
 - 17.2306 Welding
 - 17.2399 Other Metalworking Occupations (Specify)
- 17.2400 Metallurgy Occupations
- 17.2500 Nucleonic Occupations
- 17.2600 Personal Services
 - 17.2601 Barbering
 - 17.2602 Cosmetology
 - 17.2699 Other Personal Services (Specify)
- 17.2700 Plastics Occupations

- 17.2800 Public Service
 - 17.2801 Fireman
 - 17.2802 Law Enforcement Training
 - 17.2803 Other Public Services (Specify)
- 17.2900 Quantity Food Occupations
 - 17.2901 Baker
 - 17.2902 Cook/Chef
 - 17.2903 Meat Cutter
 - 17.2904 Waiter/Waitress
 - 17.2999 Other Quantity Food Occupations (Specify)
- 17.3000 Refrigeration
- 17.3100 Small Engine Repair (Internal Combustion)
- 17.3200 Stationary Energy Sources Occupations
 - 17.3201 Electric Power and Generating Plants
 - 17.3202 Pumping Plants
 - 17.3203 Other Stationary Energy Sources Occupations (Specify)
- 17.3300 Textile Production and Fabrication
 - 17.3301 Dressmaking
 - 17.3302 Tailoring
 - 17.3303 Other Textile Production and Fabrication (Specify)
- 17.3400 Shoe Manufacturing/Repair
- 17.3500 Upholstering
- 17.3600 Woodworking Occupations
 - 17.3601 Millwork and Cabinet Making
 - 17.3699 Other Woodworking Occupations (Specify)
- 17.9000 Diversified Cooperative Training
- 17.9900 Other Trades and Industry Occupations (Specify)
- 17.9901 Integrated Shop Program (ISP)
- 99.9900 GUIDANCE TYPE COURSES AND INDUSTRIAL ARTS COURSES
 - 99.9901 Millard 9th Grade, PEDAPOP
 - 99.9902 Millard 10th Grade, American Industry
 - 99.9903 Millard 11th Grade, Over the Shoulder

REFER TO "FOLLOW-UP" CODE BOOK FOR
INSTRUCTIONS FOR COMPLETING THIS FORM

PLEASE ANSWER ALL QUESTIONS

All Information is Confidential

Please print or write legibly

Form Number RCU-4		STUDENT EXIT FORM				Mail to: "Follow-Up"	
Estimated Year of Graduation 19 <u>72</u>		The data on this form will be used in vocational follow-up studies				1400 University Club Building Salt Lake City, Utah 84111	
1. Student Name: Last First Middle Bradly, Jennifer Kay	2. Social Security Number 528-46-7002	*3. District Code 36	*4. School Code 712	5. Telephone Number 328-5891	8. Male ☐	Female ☒	
6, 11. Street Address--City, State, Zip 1328 South 9th East Salt Lake City, Utah 84105		VOCA TIONAL COURSE(S):		#1	#2	#3	#4
*9. Course Code (Complete for each vocational course presently taking)		14.0100		09.0104	09.0203	14.0900	
*10. Course Name (Complete for each vocational course presently taking)		Accounting and Computing		Consumer Education	Home Furnishings	Typing	
12. At time of exit from course will student have completed the course? (Complete for each vocational course presently taking)		Yes ☒ No ☐		Yes ☒ No ☐	Yes ☐ No ☒	Yes ☐ No ☒	
13. Exit Date: Date student leaves or completes course. (Complete for each vocational course presently taking)		Mo. Day Yr. 6-1-70		Mo. Day Yr. 6-1-70	Mo. Day Yr. 6-1-70	Mo. Day Yr. 6-1-70	
*15. At exit was student in a cooperative work study program? (Complete for each vocational course presently taking)		Yes ☒ No ☐		Yes ☐ No ☒	Yes ☐ No ☒	Yes ☐ No ☒	
7. Birth Date: Month Day Year 11 2 54		INSTRUCTIONS					
18. (Check one box)		STATUS OF STUDENT AS OF EXIT DATE 1. Graduating from High School ☒ 2. Graduating from Post-Secondary School ☐ 3. Dropping out of school ☐ 4. Changing schools ☐ 5. Remaining in same school ☒					

1. Use this form whenever a student leaves class (see page 3 of the "Follow-Up" Code Book)

2. See "Follow-Up" Code Book for District, School, Course Codes.

3. Please send to "Follow-Up" immediately after completion.

4. Incomplete forms will be returned to instructor.

5. Teachers should give information for numbers with asterisks.